(19) World Intellectual Property **Organization**

International Bureau





(43) International Publication Date 30 June 2005 (30.06.2005)

PCT

(10) International Publication Number WO 2005/058603 A3

(51) International Patent Classification⁷: B41J 11/00, 13/14, 13/12

(21) International Application Number:

PCT/GB2004/005129

(22) International Filing Date:

10 December 2004 (10.12.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0328861.0

12 December 2003 (12.12.2003) GB

- (71) Applicant (for all designated States except US): INCA DIGITAL PRINTERS LIMITED [GB/GB]; 511 Coldhams Lane, Cambridge CB1 3JS (GB).
- (72) Inventor; and
- Inventor/Applicant (for US only): EVE, Richard, William [GB/GB]; Flat B, 2A Gresham Road, Cambridge CB1 2EP (GB).
- Agents: MURRAY, Elisabeth, Anne et al.; Mathys & Squire, 120 Holborn, London EC1N 2SQ (GB).

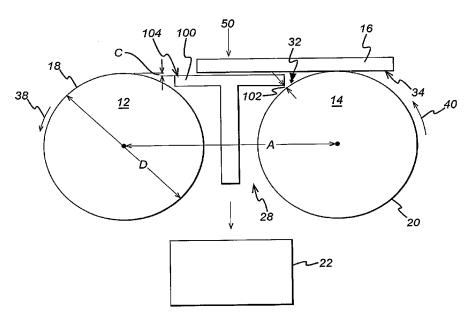
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: PRINTING MOVING SUBSTRATES



(57) Abstract: An ink jet printing apparatus for printing on a moving substrate (16) is described. The apparatus comprises ink jet printheads (4) for printing on a surface of the substrate, a plurality of rollers (12, 14) arranged to move the substrate (16) relative to the printheads (4), and a pressure source (22). The pressure source (22) is arranged to apply a negative gauge pressure (32) to the substrate (16). The application of the pressure can hold the substrate flat and can reduce undesired movement of the substrate relative to the rollers (12, 14). The apparatus allows for high quality full colour images to be printed onto substrates in a single pass using an ink jet printer.



(88) Date of publication of the international search report: 25 August 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.